

## Replacement Instructions

# hp StorageWorks MSA1500 cs/MSA20 Fan Module

*These instructions apply to the MSA1500 cs and MSA20 product families. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.*



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:  
<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:  
[http://customerops.corp.hp.com/1sw/pdm\\_om/warranty\\_support/policies/2330100.doc](http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc)

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

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## About this document

This document details the procedures for replacing a failed fan module in MSA1500 cs or MSA20 storage product.

## Verifying component failure

Before replacing the fan module, use the following methods to verify the component failure.

### MSA1500 cs

- Check the controller LCD for the error message listed in [Figure 1](#).

Table 1: LCD Error Message

No.	Message
401	STORAGE BOX #<n> FAN FAILED

- The system fault indicator on the enclosure is amber ❶.

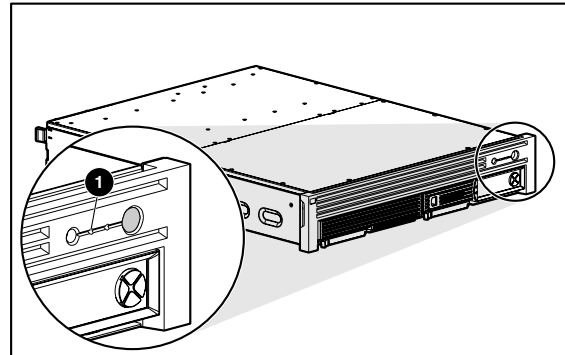


Figure 1: MSA1500 cs system fault indicator

### MSA20

- The enclosure fault indicator is amber ❶.

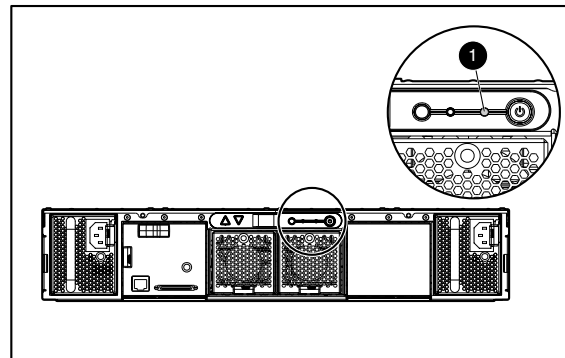


Figure 2: MSA20 enclosure fault indicator

### MSA1500 cs and MSA20

- The fan module indicator on the rear of the module is flashing amber ❶.

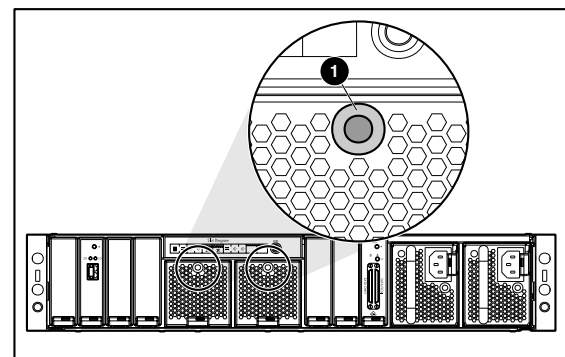




Figure 3: Fan module indicator

Before you begin


Read the following cautions and information before beginning removal and replacement procedures.




**Caution:** Be sure the replacement part is available before removing the failed component. Removing a component impacts cooling within the enclosure.



**Caution:** Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.



**Caution:** It is important to follow these instructions when replacing components in the MSA. If the procedure is done improperly, it is possible to lose data or damage equipment.



**Caution:** Before replacing this hot-pluggable component ensure that steps have been taken to prevent loss of data.

**Note:** Some of the illustrations in this document may show a different unit. However, the replacement instructions are the same for all units in the MSA family using this component.

Step 1: Removing the fan module

- 1. Lift the port-colored fan module latch ❶ and pull the fan module out of the enclosure ❷.

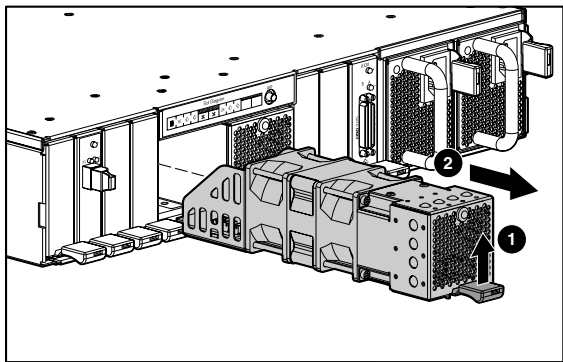


Figure 4: Removing the fan module

Step 2: Installing the fan module

- 1. Remove any connector protector that may be covering the connector on the front of the new fan module.
- 2. Slide the fan module into the bay until it clicks into place.

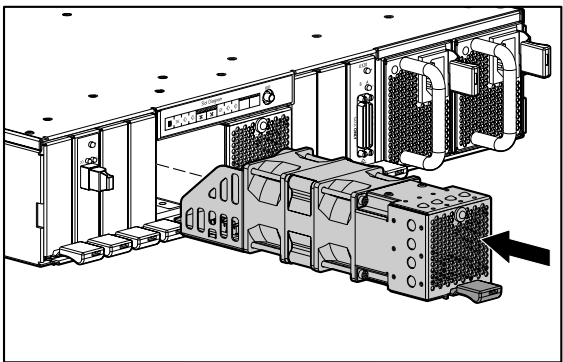


Figure 5: Installing the fan module

Verifying the replacement

After replacing the failed fan module verify that:

MSA1500 cs

- Check the controller LCD for the message listed in Figure 2.

Table 2: LCD Verification Message

No.	Message
400	STORAGE BOX #<n> FAN OK

- The MSA1500 cs system fault indicator is off (Figure 1, ❶).
- The heartbeat LED is flashing green ❶.

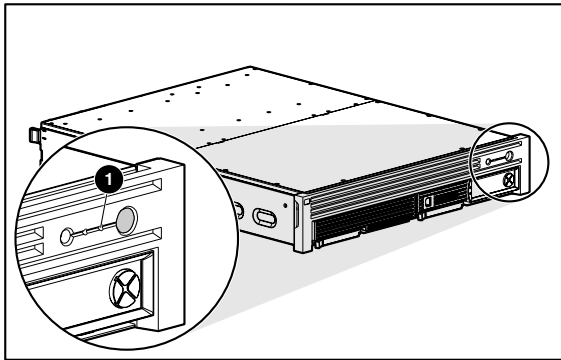


Figure 6: Heartbeat LED

MSA20

- The MSA20 enclosure fault indicator is no longer illuminated (Figure 2, ❶).

MSA1500 cs and MSA20

- The fan module indicator on the rear of the module is solid green (Figure 3, ❶).

Returning the failed component

Please follow the return instructions provided in the replacement component package.

Additional information

For additional information on the MSA1500 cs, refer to the MSA technical documents web site at <http://www.hp.com/go/msa1500cs>.

For additional information on the MSA20, refer to the MSA technical documents web site at <http://www.hp.com/go/msa20>.